

New Jersey Department of Environmental Protection
Division of Air Quality
Bureau of Technical Services
Air Quality Evaluation Section

May 17, 2007

REVISIONS TO THE NJDEP/DAQ RISK SCREENING WORKSHEET

The NJDEP Division of Air Quality Risk Screening Worksheet has been revised.

- 1. Revised Air Impact Values** - The air impact values (used to calculate normalized ambient air concentrations on the risk screening worksheet) have been revised using USEPA's updated regulatory model, AERMOD. Values can be found in the Excel spreadsheet "Risk2007.xls" (which contains the risk screening worksheet), in separate worksheets titled "Annual" and "24 Hour" (see the tabs at the bottom of the screen). The old values, presented as "Tables of Normalized Concentrations for Use with Risk Screening Worksheet" and dated 4/10/03, should no longer be used.
- 2. Automatic Input of Air Impact Values** - Air impact values no longer have to be manually typed into the risk screening worksheet. When the cells for stack height and distance to property line are filled in (cells H16 and H17), the corresponding long- and short-term air impact values will automatically fill in.
- 3. Updated Toxicity Values** - Changes to the lists of unit risk factors, long-term reference concentrations, and short-term reference concentrations are noted below. The revised lists are dated May 2007, and replace the ones dated September 2005. The lists (including references) can be found at www.nj.gov/dep/aqpp/risk.html. For additional information, contact Olga Boyko at 609-633-1108 or Olga.Boyko@dep.state.nj.us.
- 4. Diesel Particulate Matter URF** - The unit risk factor for diesel particulate matter has been added to the risk screening worksheet. The URF had already been included in the list of "Unit Risk Factors for Inhalation," but was not in the worksheet. The previous version of the risk screening worksheet contained only a reference concentration (now revised; see below).

Unit Risk Factors

Changes (all values are in $[\mu\text{g}/\text{m}^3]^{-1}$)

Chlorobenzilate - changed from 7.8E-5 (HEAST 97) to 3.1E-5 (Cal 05b)

Additions

2-Acetylaminofluorene

Ethylbenzene

Reference Concentrations (Long-Term)

Changes (all values are in $\mu\text{g}/\text{m}^3$)

Diesel engine emissions - changed from 0.5 (IRIS value adjusted by AQEv) to 5 (IRIS, unadjusted)

N-Hexane - changed from 200 (IRIS) to 700 (IRIS)

Toluene - changed from 400 (IRIS) to 300 (Cal 05a)

Additions

Phosgene

Short-Term Reference Concentrations**Changes**

2,4-Toluene diisocyanate -The CAS number given on the list of “Reference Concentrations for Short-Term Inhalation Exposure” has been corrected.